EDMUNDSTON, SEPT. 9, 1893.

Sawmill of J. Murchie & Sons, on the Madawaska, in the town, about 1/4 mile above its mouth. Water mill, dam, no fishway, good power, there being a great surplus of water even now in this dry season.

1 rotary, 1 edger, 1 lath machine, 1 planer, 6 shingle machines.

Make 13,000 shingles as a day's work to each machine. Average about seven months work a year. Last year had a long season, beginning in April and ending December 17, 1892. The average of 13,000 is common to all shingle machines. The amount of a man's work is based upon this figure, and holds generally in shingle mills everywhere in this part of the country.

The scaler at this mill said that the waste from cedar logs in sawing shingles would average fully one-half. They scale logs here 40% to 50%. The cedar timber is better on this river than on the Green River.

At this mill the edgings coming from the lath machine are burned in an open dump across the

river Madawaska from the mill,(Mill is on east side) there being a bridge and tramway across. The sawdust and planer shavings all go into the river; also all the shingle waste except what individuals may come in and save and cart away. That is to say the mill attempts to dispose only of the lath edgings by burning. The slabs and larger edgings not suited for laths were carted away, apparently by private teams. One man was taking out sawdust in a large basket and piling it on the side of the road, but this was only a mere trifle of the sawdust made. In the shingle mill I saw a boy taking up the cores and carrying them out on to a pile. They were for use as fuel. The smaller shingle refuse(bark, bad shingles, outside pieces, sawdust, etc.) all fell into the stream. It is impossible to say how long the above arrangements continued. The river below the mill is everywhere full of waste, and people along the banks are taking it in for fuel. The large cores occur here in abundance, and this place is a fruitful source of the cedar waste found throughout the St. John. The Madawaska is also full of fine and shingle sawdust.

This mill is driven hard, working day and night when business is good. Not working nights

now, as there is not much demand for shingles. Have an electric light plant in mill for their own use.

Was told that the mill at the mouth of Baker Brook on the St. John was a steam mill with two shingle machines and 1 rotary. Belongs to Guerrett; was started a month ago and would work during summer. Could estimate manufacture of shingles at 13,000 per day.

GRAND FALLS, SEPT. 8, 1893.

The photographs show the character of the falls and gorge, but give no idea of their extent and grandeur. The upper or main pitch of the fall may be 60 to 75 feet high. There are two very low falls farther down, all three being shown on one of the photographs. The two lower are not obstructions to salmon in any way, and there are several large, deep and fine pools on the way up. The upper fall is an effectual barrier. No fishway could be maintained on the face or at the sides of this fall, on account of the ice and logs coming down. It would be feasible, but very expensive, to build a fishway up from under the little grist mill, on the south side. There is a sluice way, cut or natural, through the rocks above this grist mill, which is deep and has an abundance of water. It comes in some distance above the crest of the falls, and has a dam at the grist mill. It continues down from the mill to the river below in a steep slope. Very much cutting and hard work would be necessary to utilize this slope for fishway purposes, as it is merely an irregular shallow gorge-like depression in the side of the cliff, down which the water

passes from the mill. The water tumbles here, and the slope is very steep. It would, however, be out of the way of the ice and logs, unless it might be in the lower part, where the logs seem to jam up in the spring at times to an enormous height. The lower part of the fishway would be in constant danger of destruction, and would cost much to maintain. Once up in the sluice above the mill the salmon would have no trouble.

At the bridge Mr. Howard has measured the height of the same above the water. At very lowest water he has found a height of 121 feet. At ordinary summer level the height is about 115 feet. In the spring the water rises enormously. The gorge extends down perhaps $1\frac{1}{2}$ miles, but soon begins to decrease in height and gradually disappears below.

EDMUNDSTON, N. B., SEPT. 9, 1893.

This afternoon saw Mr. Fred Murchie, son of John Murchie, who looks after their mill here. Cut about as follows:

30,000 ft. long lumber per day for 7 mos., of 26 days each.
Same quantity of laths.
Cut 20,000,000 shingles last year,
Will cut 10 to 12,000,000 shingles this year.

The edgings are all burned or carted away.

He thinks 2/3 of shingle blocks are saved for fuel. Mill is eight or nine years old and dam same. A fishway was put in the first or second year of dam. It lies right on the apron on the opposite side from the mill; extends only part way down the apron, and the lower end was now several feet above the water. It has gone pretty well to pieces, and it is now impossible to say of what it consisted in the beginning. It would now be of no use even in high water.(Dr. Wakeham says there is no need for a fishway here, as the trout do not need to run up and down. There are no other fish to run). The dam is now about 9 feet high above the level of the water below. In the spring the water may be four feet higher.

Quite a number of trout are caught above

and below this dam, more especially above the dam, in the spring and early summer. It is a good trout stream through its entire length.

The so-called "Little Falls" of the St. John at Edmundston, are not in the St. John River, but in the Madawaska, at the rail road bridge, just above its mouth.

The Madawaska is here a good-sized stream, and below the Murchie mill and rapid, rippling one, with a stronger rapid at the rail road bridge near its mouth, called "Little Falls". Shingle waste of all kinds, and fine sawdust are accumulated all through the channel and along the shores.

There is a good water power at the mill, and the water is of course quiet in the log pond above, the back water. Had no time to follow it farther up.

There are two saw mills up the Madawaska system. They are both in Quebec. One is at the mouth of Pole River; belongs to La Point; 1 rotary, 1 shingle machine, water mill with dam.

The other is on the Campano stream, belongs to Guernsey; 1 rotary, 2 shingle machines. Water mill with dam across, 5 miles above mouth of Campano.

Each of these mills will average running about 1/2 of each year. Some shingle waste reaches the Murchie mill from the mill in Pole River. The Campano mill waste would have to pass through part of Temisconato Lake to reach the Madawaska, which it does not do.

There is a third mill on Trout River, but it has not been running for some time.

On the Rockway, eight miles from Edmundston by wagon road, there is a water mill belonging to David Reusso. Has 1 shingle machine.

The first mill in New Brunswick above Edmundston is Guerrett's, who has a rotary, at least; the second and last is Connor's.

AMERICAN SIDE.

Grand Isle, Charles Monroe. Steam mill, on shore of St. John River. Has shingle machines.

Frenchville, Small mill, five or six miles back of this place on a lake(steam?). Has one shingle machine.

Fort Kent. Big shingle mill.

Dr. Sinclair. Between Fort Kent and Connors. Steam, rotary and shingles.

Whelock. Very near Connors. Steam, rotary, shingle machines.

Sept. 9, 1893. Arrived at Connors. End of Temiscouata R. R. on St. John R. (opposite St. Francis, Me.) about 8 P. M.

Sept. 10. Sunday morning inspected Connor's sawmill, which is just below the station on bank of St. John; steam. Much of refuse goes in river, but there was not much refuse along the bank. The mill has been running only a short time. It was closed to-day and I could not get in.

Wheelock's mill, Me., is on the opposite shore, an elongate island lies between, and not more than 1/2 mile farther down stream, Steam mill.

In the afternoon visited Wheelock's mill. It is in St. John Plantation. The present building is a rather new one, but there was another one in the same place before. Steam mill. 1 rotary, 3 shingle machines. Cuts comparatively little long lumber, chiefly for

local custom. The shingle machines are kept running as much of the year as possible. Last year ran 10 months, which is longer than usual. Each machine cuts from 88 to 98,000 shingles a week, which is higher rate than has been given us before, but I was shown some of the tally sheets.

Except what is burnt in steam furnace, all waste goes into the river, a chain belt being carried out over the river for this purpose. I noticed in the river below the mill especially, shingle saw dust. The channel on the side of the island where this mill is located is not the main or larger channel.